WHAT IS CLAIMED IS:

1. A method of identifying a time slot boundary of an unknown cell in a telecommunications system, the method comprising:

correlating a received signal with a known code over a range of delay values for each of one or more time slots, wherein the known code is used by all cells in the telecommunications system;

only for each of the delay values that are not associated with a known cell, accumulating correlation values obtained at each of the one or more time slots; and

identifying the time slot boundary by determining which of the delay values is associated with a highest accumulated correlation value.

2. The method of claim 1, further comprising:

using the time slot boundary to identify a frame boundary.

3. The method of claim 2, further comprising:

using the frame boundary to identify the unknown cell.

4. The method of claim 1, comprising:

using one or more stored monitored delay sets to determine which delay values are not associated with a known cell.

5. The method of claim 4, comprising:

filtering the one or more stored monitored delay sets using delay information obtained over a period of time.

6. The method of claim 5, wherein the filtering is a non-linear filtering that does not utilize information about the size of multipath powers.

7. The method of claim 5, wherein filtering the one or more stored monitored delay sets using delay information obtained over the period of time comprises:

for each delay value in an existing one of the monitored delay sets, adjusting a corresponding quality indicator to indicate a lower quality if the delay value is not also represented in a newly obtained set of delay values;

for each delay value in the existing one of the monitored delay sets, adjusting the corresponding quality indicator to indicate a higher quality if the delay value is also represented in the newly obtained set of delay values; and

for each of the quality indicators, if the quality indicator is less than a first threshold value, then removing the corresponding delay value from the existing one of the monitored delay sets.

8. The method of claim 7, wherein filtering the one or more stored monitored delay sets using delay information obtained over the period of time comprises:

adding one or more newly-found delays to the existing one of the monitored delay sets.

9. The method of claim 7, wherein:

adjusting a corresponding quality indicator to indicate a lower quality is in accordance with

$$q_{i,j}^{(mon)} = q_{i,j}^{(mon)} - c_1 ,$$

where:

$q_{i,j}^{(mon)}$ is a j^{th} quality indicator corresponding to cell i in the telecommunications system;

$i = 1,\ldots,N_{cells}$;

N_{cells} is a total number of cells in the telecommunications system;

$j = 1,\ldots,\hat{N}_{delays}$;

$\hat{N}_{delays}$ is a total number of delay values in the existing one of the monitored delay sets; and

c_1 is a first predefined constant; and

adjusting the corresponding quality indicator to indicate a higher quality is in accordance with:

$$q_{i,j}^{(mon)} = q_{i,j}^{(mon)} + c_2 ,$$

where c_2 is a second predefined constant.

10. The method of claim 9, wherein:

the first threshold is zero;

c_1 is in a range 1 to 2, inclusive; and

c_2 is in a range 3 to 4, inclusive.

11. The method of claim 10, wherein adjusting the corresponding quality indicator to indicate a higher quality further comprises limiting how large $q_{i,j}^{(mon)}$ is permitted to become such that if $q_{i,j}^{(mon)} > \tau_{high}$, then $q_{i,j}^{(mon)}$ is set equal to τ_{high}.

12. The method of claim 7, wherein adjusting the corresponding quality indicator to indicate a higher quality comprises preventing the corresponding quality indicator from exceeding a predefined maximum value.

13. The method of claim 7, further comprising:

generating a set of newly-found delays; and

determining that there is not enough space in an existing one of one or more monitored delay sets to additionally store all delays in the set of newly-found delays, and in response thereto replacing one or more delay values in the existing one of the monitored delay sets with a corresponding number of delay values in the set of newly-found delays.

14. The method of claim 13, comprising:

in response to determining that there is not enough space in an existing one of one or more monitored delay sets to additionally store all delays in the set of newly-found delays, then making space in the existing one of one or more monitored delay sets by removing from the existing one of the monitored delay sets those delay values having a corresponding quality indicator lower than a predetermined amount.

15. The method of claim 13, comprising:

in response to determining that there is not enough space in an existing one of one or more monitored delay sets to additionally store all delays in the set of newly-found delays, then causing best newly-found delay values to replace worst old delay values.

16. The method of claim 15, wherein the best newly-found delay values are those having power values that are above a noise floor level by a factor of a predetermined amount.

17. A method of filtering a monitored delay set in a telecommunications system, the method comprising:

for each delay value in the monitored delay set, adjusting a corresponding quality indicator to indicate a lower quality if the delay value is not also represented in a newly obtained set of delay values;

for each delay value in the monitored delay set, adjusting the corresponding quality indicator to indicate a higher quality if the delay value is also represented in the newly obtained set of delay values; and

for each of the quality indicators, if the quality indicator is less than a first threshold value, then removing the corresponding delay value from the monitored delay set.

18. The method of claim 17, comprising:

adding one or more newly-found delays to the existing one of the monitored delay sets.

19. The method of claim 17, wherein:

adjusting a corresponding quality indicator to indicate a lower quality is in accordance with

$$q_{i,j}^{(mon)} = q_{i,j}^{(mon)} - c_1 ,$$

where:

$q_{i,j}^{(mon)}$ is a j^{th} quality indicator corresponding to cell i in the telecommunications system;

$i = 1,\ldots,N_{cells}$;

N_{cells} is a total number of cells in the telecommunications system;

$j = 1,\ldots,\hat{N}_{delays}$;

$\hat{N}_{delays}$ is a total number of delay values in the existing one of the monitored delay sets; and

c_1 is a first predefined constant; and

adjusting the corresponding quality indicator to indicate a higher quality is in accordance with:

$$q_{i,j}^{(mon)} = q_{i,j}^{(mon)} + c_2 ,$$

where c_2 is a second predefined constant.

20. The method of claim 19, wherein:

the first threshold is zero;

c_1 is in a range 1 to 2, inclusive; and

c_2 is in a range 3 to 4, inclusive.

21. The method of claim 20, wherein adjusting the corresponding quality indicator to indicate a higher quality further comprises limiting how large $q_{i,j}^{(mon)}$ is permitted to become such that if $q_{i,j}^{(mon)} > \tau_{high}$, then $q_{i,j}^{(mon)}$ is set equal to τ_{high}.

22. The method of claim 17, wherein adjusting the corresponding quality indicator to indicate a higher quality comprises preventing the corresponding quality indicator from exceeding a predefined maximum value.

23. The method of claim 17, further comprising:

generating a set of newly-found delays; and

determining that there is not enough space in an existing one of one or more monitored delay sets to additionally store all delays in the set of newly-found delays, and in response thereto replacing one or more delay values in the existing one of the monitored delay sets with a corresponding number of delay values in the set of newly-found delays.

24. The method of claim 23, comprising:

in response to determining that there is not enough space in an existing one of one or more monitored delay sets to additionally store all delays in the set of newly-found delays, then making space in the existing one of one or more monitored delay sets by removing from the existing one of the monitored delay sets those delay values having a corresponding quality indicator lower than a predetermined amount.

25. The method of claim 23, comprising:

in response to determining that there is not enough space in an existing one of one or more monitored delay sets to additionally store all delays in the set of newly-found delays, then causing best newly-found delay values to replace worst old delay values.

26. The method of claim 25, wherein the best newly-found delay values are those having power values that are above a noise floor level by a factor of a predetermined amount.

27. An apparatus for identifying a time slot boundary of an unknown cell in a telecommunications system, the apparatus comprising:

logic that correlates a received signal with a known code over a range of delay values for each of one or more time slots, wherein the known code is used by all cells in the telecommunications system;

logic that accumulates correlation values obtained at each of the one or more time slots, only for each of the delay values that are not associated with a known cell; and

logic that identifies the time slot boundary by determining which of the delay values is associated with a highest accumulated correlation value.

28. The apparatus of claim 27, further comprising:

logic that uses the time slot boundary to identify a frame boundary.

29. The apparatus of claim 28, further comprising:

logic that uses the frame boundary to identify the unknown cell.

30. The apparatus of claim 27, comprising:

logic that uses one or more stored monitored delay sets to determine which delay values are not associated with a known cell.

31. The apparatus of claim 30, comprising:

logic that filters the one or more stored monitored delay sets using delay information obtained over a period of time.

32. The apparatus of claim 31, wherein the logic that filters performs a non-linear filtering without utilizing information about the size of multipath powers.

33. The apparatus of claim 31, wherein the logic that filters the one or more stored monitored delay sets using delay information obtained over the period of time comprises:

logic that, for each delay value in an existing one of the monitored delay sets, adjusts a corresponding quality indicator to indicate a lower quality if the delay value is not also represented in a newly obtained set of delay values;

logic that, for each delay value in the existing one of the monitored delay sets, adjusts the corresponding quality indicator to indicate a higher quality if the delay value is also represented in the newly obtained set of delay values; and

logic that, for each of the quality indicators, removes the corresponding delay value from the existing one of the monitored delay sets if the quality indicator is less than a first threshold value.

34. The apparatus of claim 33, wherein the logic that filters the one or more stored monitored delay sets using delay information obtained over the period of time comprises:

logic that adds one or more newly-found delays to the existing one of the monitored delay sets.

35. The apparatus of claim 33, wherein:

the logic that adjusts a corresponding quality indicator to indicate a lower quality operates in accordance with

$$q_{i,j}^{(mon)} = q_{i,j}^{(mon)} - c_1 ,$$

where:

$q_{i,j}^{(mon)}$ is a j^{th} quality indicator corresponding to cell i in the telecommunications system;

$i = 1,\ldots,N_{cells}$;

N_{cells} is a total number of cells in the telecommunications system;

$j = 1,\ldots,\hat{N}_{delays}$;

$\hat{N}_{delays}$ is a total number of delay values in the existing one of the monitored delay sets; and

c_1 is a first predefined constant; and

the logic that adjusts the corresponding quality indicator to indicate a higher quality operates in accordance with:

$$q_{i,j}^{(mon)} = q_{i,j}^{(mon)} + c_2 ,$$

where c_2 is a second predefined constant.

36. The apparatus of claim 35, wherein:

the first threshold is zero;

c_1 is in a range 1 to 2, inclusive; and

c_2 is in a range 3 to 4, inclusive.

37. The apparatus of claim 36, wherein the logic that adjusts the corresponding quality indicator to indicate a higher quality further comprises logic that limits how large $q_{i,j}^{(mon)}$ is permitted to become such that if $q_{i,j}^{(mon)} > \tau_{high}$, then $q_{i,j}^{(mon)}$ is set equal to τ_{high}.

38. The apparatus of claim 33, wherein the logic that adjusts the corresponding quality indicator to indicate a higher quality comprises logic that prevents the corresponding quality indicator from exceeding a predefined maximum value.

39. The apparatus claim 33, further comprising:

logic that generates a set of newly-found delays; and

logic that determines that there is not enough space in an existing one of one or more monitored delay sets to additionally store all delays in the set of newly-found delays, and in response thereto replaces one or more delay values in

the existing one of the monitored delay sets with a corresponding number of delay values in the set of newly-found delays.

40. The apparatus of claim 39, comprising:

logic that, in response to determining that there is not enough space in an existing one of one or more monitored delay sets to additionally store all delays in the set of newly-found delays, makes space in the existing one of one or more monitored delay sets by removing from the existing one of the monitored delay sets those delay values having a corresponding quality indicator lower than a predetermined amount.

41. The apparatus of claim 39, comprising:

logic that, in response to determining that there is not enough space in an existing one of one or more monitored delay sets to additionally store all delays in the set of newly-found delays, causes best newly-found delay values to replace worst old delay values.

42. The apparatus of claim 41, wherein the best newly-found delay values are those having power values that are above a noise floor level by a factor of a predetermined amount.

43. An apparatus for filtering a monitored delay set in a telecommunications system, the apparatus comprising:

logic that, for each delay value in the monitored delay set, adjusts a corresponding quality indicator to indicate a lower quality if the delay value is not also represented in a newly obtained set of delay values;

logic that, for each delay value in the monitored delay set, adjusts the corresponding quality indicator to indicate a higher quality if the delay value is also represented in the newly obtained set of delay values; and

logic that, for each of the quality indicators, removes the corresponding delay value from the monitored delay set if the quality indicator is less than a first threshold value.

44. The apparatus of claim 43, comprising:

logic that adds one or more newly-found delays to the existing one of the monitored delay sets.

45. The apparatus of claim 43, wherein:

the logic that adjusts a corresponding quality indicator to indicate a lower quality operates in accordance with

$$q_{i,j}^{(mon)} = q_{i,j}^{(mon)} - c_1,$$

where:

$q_{i,j}^{(mon)}$ is a j^{th} quality indicator corresponding to cell i in the telecommunications system;

$i = 1,\ldots,N_{cells}$;

N_{cells} is a total number of cells in the telecommunications system;

$j = 1,\ldots,\hat{N}_{delays}$;

$\hat{N}_{delays}$ is a total number of delay values in the existing one of the monitored delay sets; and

c_1 is a first predefined constant; and

adjusting the corresponding quality indicator to indicate a higher quality is in accordance with:

$$q_{i,j}^{(mon)} = q_{i,j}^{(mon)} + c_2,$$

where c_2 is a second predefined constant.

46. The apparatus of claim 45, wherein:

the first threshold is zero;

c_1 is in a range 1 to 2, inclusive; and

c_2 is in a range 3 to 4, inclusive.

47. The apparatus of claim 46, wherein the logic that adjusts the corresponding quality indicator to indicate a higher quality further comprises logic that limits how large $q_{i,j}^{(mon)}$ is permitted to become such that if $q_{i,j}^{(mon)} > \tau_{high}$, then $q_{i,j}^{(mon)}$ is set equal to τ_{high}.

48. The apparatus of claim 43, wherein the logic that adjusts the corresponding quality indicator to indicate a higher quality comprises logic that prevents the corresponding quality indicator from exceeding a predefined maximum value.

49. The apparatus claim 43, further comprising:

logic that generates a set of newly-found delays; and

logic that determines that there is not enough space in an existing one of one or more monitored delay sets to additionally store all delays in the set of newly-found delays, and in response thereto replaces one or more delay values in the existing one of the monitored delay sets with a corresponding number of delay values in the set of newly-found delays.

50. The apparatus of claim 49, comprising:

logic that, in response to determining that there is not enough space in an existing one of one or more monitored delay sets to additionally store all delays in the set of newly-found delays, makes space in the existing one of one or more monitored delay sets by removing from the existing one of the monitored delay sets those delay values having a corresponding quality indicator lower than a predetermined amount.

51. The apparatus of claim 49, comprising:

logic that, in response to determining that there is not enough space in an existing one of one or more monitored delay sets to additionally store all delays in

the set of newly-found delays, causes best newly-found delay values to replace worst old delay values.

52. The apparatus of claim 51, wherein the best newly-found delay values are those having power values that are above a noise floor level by a factor of a predetermined amount.

53. A computer-readable storage medium having stored therein one or more program instructions for causing a processor to identify a time slot boundary of an unknown cell in a telecommunications system by performing:

correlating a received signal with a known code over a range of delay values for each of one or more time slots, wherein the known code is used by all cells in the telecommunications system;

only for each of the delay values that are not associated with a known cell, accumulating correlation values obtained at each of the one or more time slots; and

identifying the time slot boundary by determining which of the delay values is associated with a highest accumulated correlation value.

54. A computer-readable storage medium having stored therein one or more program instructions for causing a processor to filter a monitored delay set in a telecommunications system by performing:

for each delay value in the monitored delay set, adjusting a corresponding quality indicator to indicate a lower quality if the delay value is not also represented in a newly obtained set of delay values;

for each delay value in the monitored delay set, adjusting the corresponding quality indicator to indicate a higher quality if the delay value is also represented in the newly obtained set of delay values; and

for each of the quality indicators, if the quality indicator is less than a first threshold value, then removing the corresponding delay value from the monitored delay set.